

## ABSTRACT OF THE INVENTION

Apparatus and methods for dynamically rendering digital ink strokes of arbitrary stroke width while a user is drawing the ink strokes. An ink rendering system may receive sampled pen tip positions associated with a stylus or pen on a digitizer. The ink rendering system may further determine pen tip instances having particular shapes, sizes, and/or rotations, and may determine connecting shapes, preferably quadrangles, that connect between the pen tip instances. Smoothing techniques may also be used for existing digital ink.